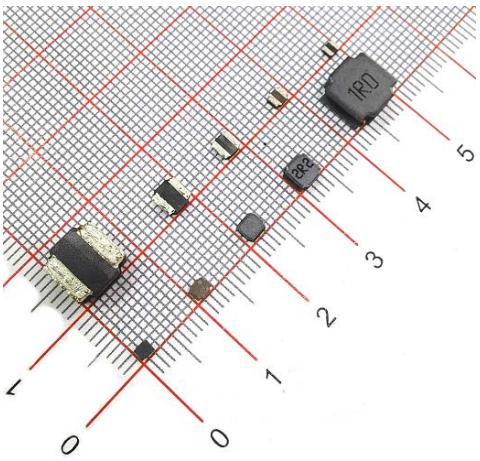
Product Outline

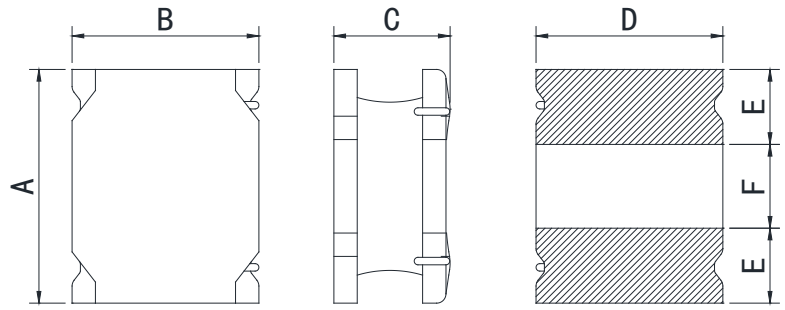
- Magnetic powder epoxy coating reduces buzz noise to a low level.
- A wide range of product line up is available to meet the various requirements.
- For DC/DC converter applications.
- Ideally used in the devices such as smartphone, car navigation, smart screen, flat-screen TVs, notebook PC, LED lighting, various power modules, etc.
- Custom design is also available.
- **RoHS compliant.**



Dimensions（unit：mm）

Recommended Land Pattern

Fig.1



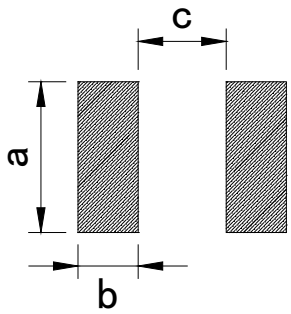
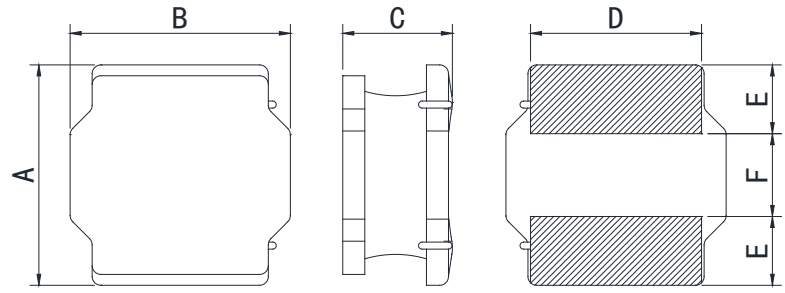


Fig.2



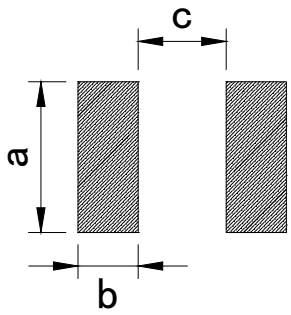
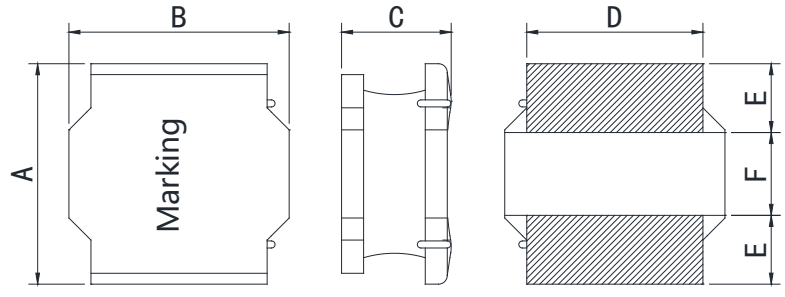
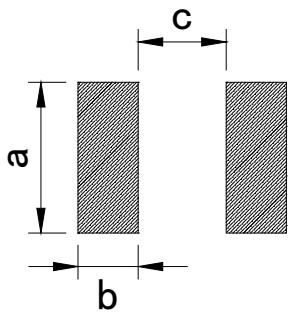


Fig.3





All specifications are subject to change without notice.

Type Table unit：mm

Type	Shape	A	B	C	D	E	F	a	b	c	Packaging (pcs/reel)
KTNR201610H	Fig.1	2.0	1.6	1.0 Max.	1.2	0.6	0.8	1.7	0.7	0.7	2000
KTNR202012H	Fig.1	2.0	2.0	1.2 Max.	1.6	0.6	0.8	2.0	0.7	0.65	2000
KTNR252010H	Fig.1	2.5	2.0	1.0 Max.	2.0	0.8	0.8	2.0	0.85	0.8	2000
KTNR252012H	Fig.1	2.5	2.0	1.2 Max.	2.0	0.8	0.8	2.0	0.85	0.8	2000
KTNR3010H	Fig.2	3.0	3.0	1.0 Max.	2.5	0.75	1.5	2.7	0.8	1.5	2000
KTNR3012H	Fig.2	3.0	3.0	1.2 Max.	2.5	0.75	1.5	2.7	0.8	1.5	2000
KTNR3015H	Fig.2	3.0	3.0	1.5 Max.	2.5	0.75	1.5	2.7	0.8	1.5	2000
KTNR4012H	Fig.3	4.0	4.0	1.2 Max.	3.3	0.95	2.1	3.7	1.1	1.9	4500
KTNR4018H	Fig.3	4.0	4.0	1.8 Max.	3.3	0.95	2.1	3.7	1.1	1.9	3000
KTNR4020H	Fig.3	4.0	4.0	2.0 Max.	3.3	0.95	2.1	3.7	1.1	1.9	3000
KTNR4030H	Fig.3	4.0	4.0	3.0 Max.	3.3	0.95	2.1	3.7	1.1	1.9	2000
KTNR8030H	Fig.3	8.0	8.0	3.0 Max.	6.3	2.0	4.0	7.5	2.2	3.0	1000

Dimensions without tolerance are typical.

Product Identification

KTNR	3010	H	-	4R7	M	C	S
(1)	(2)	(3)		(4)	(5)	(6)	(7)

(1) Product Series No.

(2) Dimension symbol.

3010=3.0 x 1.0mm (L x H)

(3) Internal control code.

(4) Inductance value.

100=10×10^0 uH=10 uH 4R7=4.7 uH

(5) Tolerance.

M=±20%, Y=±30%, P=±35%

(6) Packing Style.

C=Carrier Taping, B=Bulk.

(7) Characteristic parameter level.

KTNR201610H Electrical Characteristics

Part Number	Inductance ① (uH)	Inductance tolerance	DCR ② (mΩ) Max.	I sat ③ (A) Max.	I sat ③ (A) typ.	I rms ④ (A) Max.	I rms ④ (A) typ.
KTNR201610H-R16MCS	0.16	±20%	31	4.30	4.80	3.20	3.50
KTNR201610H-R24MCS	0.24	±20%	40	3.70	4.10	2.90	3.20
KTNR201610H-R33MCS	0.33	±20%	40	2.50	3.10	2.90	3.20
KTNR201610H-R47MCS	0.47	±20%	59	2.30	2.85	2.35	2.60
KTNR201610H-R68MCS	0.68	±20%	76	1.95	2.45	2.05	2.25
KTNR201610H-1R0MCS	1.0	±20%	114	1.65	1.85	1.45	1.60
KTNR201610H-1R5MCS	1.5	±20%	174	1.35	1.65	1.25	1.40
KTNR201610H-2R2MCS	2.2	±20%	264	1.20	1.45	1.10	1.20
KTNR201610H-3R3MCS	3.3	±20%	335	0.90	1.05	0.88	0.98
KTNR201610H-4R7MCS	4.7	±20%	479	0.70	0.85	0.74	0.82
KTNR201610H-6R8MCS	6.8	±20%	816	0.60	0.70	0.52	0.58
KTNR201610H-100MCS	10	±20%	1020	0.50	0.55	0.45	0.50

KTNR202012H Electrical Characteristics

Part Number	Inductance ① (uH)	Inductance tolerance	DCR ② (mΩ) Max.	I sat ③ (A) Max.	I sat ③ (A) typ.	I rms ④ (A) Max.	I rms ④ (A) typ.
KTNR202012H-R16MCS	0.16	±20%	31	5.20	5.80	2.50	2.75
KTNR202012H-R24MCS	0.24	±20%	42	4.70	5.20	2.20	2.40
KTNR202012H-R33MCS	0.33	±20%	42	3.50	4.00	2.20	2.40
KTNR202012H-R47MCS	0.47	±20%	50	3.55	3.75	2.00	2.20
KTNR202012H-R68MCS	0.68	±20%	60	2.95	3.10	1.80	2.00
KTNR202012H-1R0MCS	1.0	±20%	88	2.70	2.85	1.50	1.65
KTNR202012H-1R5MCS	1.5	±20%	112	2.00	2.20	1.30	1.45
KTNR202012H-2R2MCS	2.2	±20%	127	1.40	1.65	1.20	1.35
KTNR202012H-3R3MCS	3.3	±20%	276	1.20	1.35	0.85	0.95
KTNR202012H-4R7MCS	4.7	±20%	294	0.97	1.10	0.82	0.90
KTNR202012H-6R8MCS	6.8	±20%	479	0.82	0.92	0.64	0.70
KTNR202012H-100MCS	10	±20%	785	0.72	0.82	0.49	0.54
KTNR202012H-150MCS	15	±20%	1368	0.55	0.65	0.38	0.42

KTNR252010H Electrical Characteristics

Part Number	Inductance ① (uH)	Inductance tolerance	DCR ② (mΩ) Max.	I sat ③ (A) Max.	I sat ③ (A) typ.	I rms ④ (A) Max.	I rms ④ (A) typ.
KTNR252010H-R24MCS	0.24	±20%	34	3.60	4.40	2.75	3.00
KTNR252010H-R33MCS	0.33	±20%	43	3.80	4.60	2.40	2.65
KTNR252010H-R47MCS	0.47	±20%	44	2.40	2.80	2.40	2.65
KTNR252010H-R68MCS	0.68	±20%	61	2.75	3.10	2.10	2.35
KTNR252010H-1R0MCS	1.0	±20%	80	2.05	2.45	1.80	2.00
KTNR252010H-1R5MCS	1.5	±20%	108	1.70	2.05	1.55	1.70
KTNR252010H-2R2MCS	2.2	±20%	137	1.55	1.80	1.40	1.55
KTNR252010H-3R3MCS	3.3	±20%	228	1.10	1.40	1.10	1.20
KTNR252010H-4R7MCS	4.7	±20%	323	1.00	1.15	0.91	1.00
KTNR252010H-6R8MCS	6.8	±20%	451	0.82	0.95	0.76	0.84
KTNR252010H-100MCS	10	±20%	584	0.65	0.75	0.67	0.74
KTNR252010H-150MCS	15	±20%	954	0.55	0.65	0.50	0.55
KTNR252010H-220MCS	22	±20%	1548	0.45	0.55	0.40	0.45
KTNR252010H-330MCS	33	±20%	1548	0.25	0.30	0.40	0.45

KTNR3010H Electrical Characteristics

Part Number	Inductance ① (uH)	Inductance tolerance	DCR ② (mΩ) Max.	I sat ③ (A) Max.	I sat ③ (A) typ.	I rms ④ (A) Max.	I rms ④ (A) typ.
KTNR3010H-4R7MCS	4.7	±20%	18	0.85	0.95	1.10	1.25
KTNR3010H-100MCS	10	±20%	42	0.60	0.70	0.62	0.80
KTNR3010H-220MCS	22	±20%	92	0.40	0.50	0.48	0.56

KTNR3012H Electrical Characteristics

Part Number	Inductance ① (uH)	Inductance tolerance	DCR ② (mΩ) Max.	I sat ③ (A) Max.	I sat ③ (A) typ.	I rms ④ (A) Max.	I rms ④ (A) typ.
KTNR3012H-1R0MCS	1.0	±20%	40	2.20	2.50	2.30	2.50
KTNR3012H-2R2MCS	2.2	±20%	90	1.50	1.80	1.40	1.60
KTNR3012H-3R3MCS	3.3	±20%	134	1.23	1.55	1.40	1.60
KTNR3012H-100MCS	10	±20%	372	0.75	0.90	0.75	0.80
KTNR3012H-220MCS	22	±20%	840	0.50	0.60	0.50	0.55

KTNR3015H Electrical Characteristics

Part Number	Inductance ① (uH)	Inductance tolerance	DCR ② (mΩ) Max.	I sat ③ (A) Max.	I sat ③ (A) typ.	I rms ④ (A) Max.	I rms ④ (A) typ.
KTNR3015H-R22MCS	0.22	±20%	22	6.00	6.80	3.00	3.50
KTNR3015H-R24MCS	0.24	±20%	22	5.50	5.50	3.00	3.50
KTNR3015H-R47MCS	0.47	±20%	22	2.40	2.80	3.00	3.50
KTNR3015H-R55MCS	0.55	±20%	19	2.40	2.70	3.05	3.55
KTNR3015H-1R0MCS	1.0	±20%	40	2.70	3.00	2.20	2.50
KTNR3015H-1R5MCS	1.5	±20%	48	2.00	2.30	2.00	2.30
KTNR3015H-2R2MCS	2.2	±20%	60	1.50	1.70	1.80	2.05
KTNR3015H-3R3MCS	3.3	±20%	84	1.30	1.50	1.50	1.70
KTNR3015H-3R9MCS	3.9	±20%	115	1.30	1.60	1.30	1.50
KTNR3015H-4R7MCS	4.7	±20%	115	1.10	1.20	1.30	1.50
KTNR3015H-6R8MCS	6.8	±20%	144	0.80	0.90	1.16	1.35
KTNR3015H-100MCS	10	±20%	276	0.75	0.90	0.84	0.97
KTNR3015H-150MCS	15	±20%	360	0.60	0.70	0.73	0.84
KTNR3015H-220MCS	22	±20%	540	0.52	0.60	0.60	0.70
KTNR3015H-260MCS	26	±20%	768	0.40	0.50	0.45	0.55
KTNR3015H-330MCS	33	±20%	1090	0.50	0.55	0.50	0.55
KTNR3015H-470MCS	47	±20%	1250	0.35	0.42	0.45	0.50

KTNR4012H Electrical Characteristics

Part Number	Inductance ① (uH)	Inductance tolerance	DCR ② (mΩ) Max.	I sat ③ (A) Max.	I sat ③ (A) typ.	I rms ④ (A) Max.	I rms ④ (A) typ.
KTNR4012H-R33NCS	0.33	±30%	31	5.50	6.30	2.90	3.35
KTNR4012H-R47NCS	0.47	±30%	32	3.50	4.20	2.90	3.20
KTNR4012H-R82NCS	0.82	±30%	42	3.00	3.50	2.50	2.50
KTNR4012H-1R0NCS	1.0	±30%	50	2.80	3.30	2.20	2.90
KTNR4012H-1R5NCS	1.5	±30%	50	2.10	2.20	2.20	2.50
KTNR4012H-1R8NCS	1.8	±30%	66	2.10	2.40	2.00	2.30
KTNR4012H-2R2MCS	2.2	±20%	66	1.70	1.80	2.00	2.30
KTNR4012H-2R7MCS	2.7	±20%	84	1.90	2.20	1.70	2.00
KTNR4012H-3R3MCS	3.3	±20%	84	1.40	1.70	1.70	2.00
KTNR4012H-3R6MCS	3.6	±20%	90	1.20	1.60	1.70	2.00
KTNR4012H-4R3MCS	4.3	±20%	108	1.20	1.50	1.50	1.80
KTNR4012H-4R7MCS	4.7	±20%	108	1.20	1.30	1.50	1.80
KTNR4012H-5R1MCS	5.1	±20%	132	1.20	1.40	1.40	1.60
KTNR4012H-5R6MCS	5.6	±20%	132	1.10	1.40	1.40	1.60
KTNR4012H-6R8MCS	6.8	±20%	150	0.90	1.10	1.30	1.60
KTNR4012H-100MCS	10	±20%	204	0.80	0.90	1.10	1.30
KTNR4012H-120MCS	12	±20%	312	0.85	1.00	0.90	1.00
KTNR4012H-150MCS	15	±20%	312	0.65	0.80	0.90	1.00
KTNR4012H-180MCS	18	±20%	432	0.65	0.80	0.78	0.90
KTNR4012H-220MCS	22	±20%	460	0.50	0.65	0.78	0.90
KTNR4012H-270MCS	27	±20%	672	0.50	0.60	0.63	0.73
KTNR4012H-330MCS	33	±20%	756	0.45	0.55	0.57	0.68
KTNR4012H-360MCS	36	±20%	756	0.40	0.50	0.57	0.68
KTNR4012H-390MCS	39	±20%	1188	0.55	0.62	0.47	0.54
KTNR4012H-470MCS	47	±20%	1188	0.40	0.50	0.47	0.54
KTNR4012H-560MCS	56	±20%	1320	0.35	0.45	0.45	0.52
KTNR4012H-680MCS	68	±20%	1800	0.38	0.45	0.38	0.44
KTNR4012H-820MCS	82	±20%	2040	0.30	0.38	0.36	0.42
KTNR4012H-101MCS	100	±20%	2040	0.25	0.31	0.36	0.42

KTNR4018H Electrical Characteristics

Part Number	Inductance ① (uH)	Inductance tolerance	DCR ② (mΩ) Max.	I sat ③ (A) Max.	I sat ③ (A) typ.	I rms ④ (A) Max.	I rms ④ (A) typ.
KTNR4018H-R33NCS	0.33	±30%	16	6.50	8.00	4.20	4.47
KTNR4018H-R47NCS	0.47	±30%	20	6.50	7.20	3.50	4.00
KTNR4018H-1R0NCS	1.0	±30%	32	4.00	4.80	3.20	3.70
KTNR4018H-1R5NCS	1.5	±30%	37	3.60	4.30	2.95	3.30
KTNR4018H-2R2MCS	2.2	±20%	50	3.00	3.40	2.20	2.90
KTNR4018H-3R3MCS	3.3	±20%	66	2.30	2.90	2.00	2.50
KTNR4018H-4R7MCS	4.7	±20%	84	2.00	2.20	1.70	2.10
KTNR4018H-6R8MCS	6.8	±20%	118	1.60	1.80	1.45	1.70
KTNR4018H-100MCS	10	±20%	180	1.30	1.50	1.20	1.50
KTNR4018H-150MCS	15	±20%	252	1.10	1.20	0.85	1.20
KTNR4018H-220MCS	22	±20%	348	0.90	1.10	0.70	1.00
KTNR4018H-330MCS	33	±20%	552	0.70	0.90	0.55	0.82
KTNR4018H-470MCS	47	±20%	744	0.57	0.70	0.50	0.66
KTNR4018H-680MCS	68	±20%	972	0.53	0.62	0.40	0.60
KTNR4018H-101MCS	100	±20%	1560	0.49	0.57	0.40	0.47
KTNR4018H-151MCS	150	±20%	3120	0.41	0.47	0.28	0.33
KTNR4018H-221MCS	220	±20%	3840	0.33	0.38	0.25	0.29
KTNR4018H-331MCS	330	±20%	5880	0.26	0.31	0.20	0.23

KTNR4020H Electrical Characteristics

Part Number	Inductance ① (uH)	Inductance tolerance	DCR ② (mΩ) Max.	I sat ③ (A) Max.	I sat ③ (A) typ.	I rms ④ (A) Max.	I rms ④ (A) typ.
KTNR4020H-R33NCS	0.33	±30%	16	7.50	8.50	3.30	4.90

KTNR4030H Electrical Characteristics

Part Number	Inductance ① (uH)	Inductance tolerance	DCR ② (mΩ) Max.	I sat ③ (A) Max.	I sat ③ (A) typ.	I rms ④ (A) Max.	I rms ④ (A) typ.
KTNR4030H-R10NCS	0.10	±30%	6	17.00	18.50	4.60	6.30
KTNR4030H-R22NCS	0.22	±30%	7	11.50	12.50	3.90	5.20
KTNR4030H-R47NCS	0.47	±30%	13	8.20	9.20	4.50	5.20

KTNR8030H Electrical Characteristics

Part Number	Inductance ① (uH)	Inductance tolerance	DCR ② (mΩ) Max.	I sat ③ (A) Max.	I sat ③ (A) typ.	I rms ④ (A) Max.	I rms ④ (A) typ.
KTNR8030H-1R0NCS	1.0	±30%	0.012	7.80	9.00	6.20	7.30
KTNR8030H-1R5NCS	1.5	±30%	0.016	6.20	7.60	5.30	6.20
KTNR8030H-2R2MCS	2.2	±20%	0.020	4.90	6.30	4.80	5.70
KTNR8030H-3R3MCS	3.3	±20%	0.025	4.20	5.10	4.30	5.10
KTNR8030H-4R7MCS	4.7	±20%	0.029	3.60	4.30	4.00	4.70
KTNR8030H-6R8MCS	6.8	±20%	0.038	3.00	3.50	3.40	3.90
KTNR8030H-100MCS	10	±20%	0.043	2.40	2.80	3.00	3.70
KTNR8030H-150MCS	15	±20%	0.078	2.00	2.40	2.20	2.80
KTNR8030H-220MCS	22	±20%	0.091	1.75	2.00	1.90	2.40
KTNR8030H-330MCS	33	±20%	0.156	1.30	1.70	1.50	2.10
KTNR8030H-470MCS	47	±20%	0.221	1.10	1.40	1.30	1.70

Note：

① Inductance tested at 100kHz, 0.1 Vrms using an Agilent/HP 4192A or equivalent.

② DCR measured on a micro-ohmmeter.

③ Isat: The DC current at which the inductance decreases by 30% of it' s initial value.

④ Irms: The DC current at which △t=40℃.